WO 2005/036924

CLAIMS

- 1. Method for processing the signals from two or more microphones in a listening device which has a casing holding the microphones, and which further comprises a signal processing unit which is to provide an output signal in correspondence with the microphone signals and suited to the users hearing whereby a receiver unit for delivering the output signal to the user is provided, whereby the signals from the microphones are analysed in order to detect when the casing of the listening device is being touched, whereby further the signal processing of the signal processing unit changes whenever touching of the casing is detected.
 - 2. Method as claimed irr claim 1, whereby the short term energy in the signals from the microphones is determined, and where further the change in difference over time in the short term energy between the microphone signals is determined.
 - 3. Method as claimed in claim 2, whereby the time related change in difference in the short term energy content in the microphone signals is used to determine the rate of change in difference between the short term energy of the microphone signals.

20

5

10

15

4. Method as claimed in claim 2, whereby a value in the signal processing unit is changed whenever the rate of change in difference in the short term energy between the microphone signals reaches a pre-selected level in order to indicate that the casing is being touched.

25

- 5. Method as claimed in claim 3, whereby a microphone matching procedure is temporarily interrupted whenever it is determined that the casing is being touched.
- 6. Method as claimed in claim 3, whereby the output signal to the user is temporarily attenuated whenever it is determined that the casing is being touched.

WO 2005/036924 PCT/DK2004/000614

8

- 7. Method as claimed in claim 3, whereby a lasting change in the signal processing is effected whenever it is determined that a non-accidental touch of the casing has occurred.
- 8. Listening device having two or more microphones and comprising a casing holding the microphones and a signal processing unit which is to provide an output signal in correspondence with the microphone signal and suited to the users hearing whereby further a receiver unit for delivering the output signal to the user is provided, whereby analysing means are provided for analysing the signals from the microphones in order to detect when the hearing aid casing is touched, whereby further means are provide for changing the signal processing of the listening device whenever touching of the casing of the listening device is detected.
- 9. Listening device as claimed in claim 7, whereby a sound generator for generating a specific sound when touched is provide at the casing, such that the user may touch the sound generator whenever a user input to the hearing aid is desirable.